DOCUMENT RESUME

ED 386 058 FL 023 222

AUTHOR Mueller, Annie
TITLE Action Research Contributes More to Teaching than Just Solving Discrete Problems in the Classroom.
PUB DATE 94
NOTE 17p.; In: Bird, Norman, Ed., And Others. Language and Learning. Papers presented at the Annual International Language in Education Conference (Hong Kong, 1993); see FL 023 205.
PUB TYPE Speeches/Conference Papers (150) -- Reports - Descriptive (141)

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS Case Studies; *Classroom Research; Classroom Techniques; *English (Second Language); Foreign Countries; Higher Education; *Independent Study; Peer Relationship; *Problem Solving; Research Methodology; *Research Utilization; Second Language Instruction; *Student Motivation; Teacher Attitudes; Teacher Expectations of Students
IDENTIFIERS University of Hong Kong

ABSTRACT

The experience of one group engaged in classroom research is recounted, focusing on the variety of uses to which the results were put. The report begins with an overview of classroom research principles, then describes the project in question. The researchers were seven teachers of English as a Second Language at the University of Hong Kong who collaborated to solve a specific problem: underuse of independent study facilities and materials. The objective became the identification of effective ways of motivating and training students for independent study. The research process used included seven steps: identification of the issue; a survey of teacher expectations about independent study; an action plan; implementation of the action; observation; reflection on the observations; and plan revision. The actions undertaken resulted in concrete outcomes in individual classrooms and also to changes in both underlying principles and materials development for several courses taught in the institution. The research group shared a variety of professional concerns in addition to the research objectives, and by doing so explored numerous facets of teaching and its context. It is concluded that the project was effective in more areas than anticipated. Contains 21 references. (MSE)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED 386 058

ACTION RESEARCH CONTRIBUTES MORE TO TEACHING THAN JUST SOLVING DISCRETE PROBLEMS IN THE CLASSROOM

ANNIE MUELLER

BEST COPY AVAILABLE

PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

J. L. Clark

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC).

FL023322

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

ACTION RESEARCH CONTRIBUTES MORE TO TEACHING THAN JUST SOLVING DISCRETE PROBLEMS IN THE CLASSROOM

Annie Mueller

In this paper I would like to recount the experience of an action research (AR) group which worked together from autumn 1991 to spring 1993. The teachers involved were working at the English Centre of The University of Hong Kong (HKU), and came from a range of cultural and professional backgrounds. All taught a variety of English enhancement courses to first year students and had spent varying lengths of time at HKU.

The action research project led to significant concrete outcomes in individual classrooms and to changes in several of the courses taught at the English Centre - changes both in terms of underlying principles and in materials development. The project group shared a variety of professional concerns in addition to the research objective and by doing so explored numerous facets of teaching and its context. By providing such a forum, the AR project created a synergism in which all participants and the courses that were taught benefitted.

My interest in presenting this action research comes from the impression that while the AR project was under way, the participants consistently felt positive about the group, the meetings, the work it involved and the outcomes of the group's efforts. Sharing an analysis of why this was so will perhaps enable others to benefit from similar action research projects. Thus, the intention of this paper is to first give a short overview of the phenomenon of action research and then describe the action research project reported here. Finally a look at the *weak*, *strong* and *critical* versions of action research provides a framework on which to 'hang' the experience of this project in order to identify attributes which contributed to its success and which might be duplicated in general terms in other language teaching settings.

1. Overview of action research in education

Articles on or using statistical research or scientific research rarely begin by justifying their pedigree. However, the literature on action research often starts with a reference to the origins of this type of research which is perhaps an indication that AR is still not a universally known or applied practice. Since that may be the case, it is worthwhile to begin with some information about its development.

Modern educational research *per se* has been around for some time. Rusk (1932) cites a statement that the Teacher's Guild of Great Britain and Ireland made in 1888 regarding a study of **mental fatigue** (presumably among students). The study was thought to be "productive of much good and might help teachers to obtain ... influence to which they are entitled and which they do not at present possess" (Rusk 1932:16).

Rusk offers further indications of the value of educational research by and for teachers in giving the profession its due. He quotes a 1926 publication titled *Research for Teachers* - "Research will not only powerfully and rapidly develop the technique of teaching but will also react to vitalize and dignify the work of the individual teacher ... nothing would so effectively obtain for the teaching body the professional expertness and reputation for having it as the open-eyed, open minded scientific spirit of inquiry" (ibid: 69-70).

This indicates that already in the 1920s and 1930s there is an awareness of educational research and a concern that it should be undertaken for practical reasons, in order to understand, inform and improve classroom practices. In addition, research by teachers about teaching and learning is recognized as something that enhances professional self-esteem.

Rusk points out the distinction between **pure or scientific research** with its 2 steps:

1. a problem is selected
2. a careful and scholarly solution must be found

and **practical research** with 5 steps,

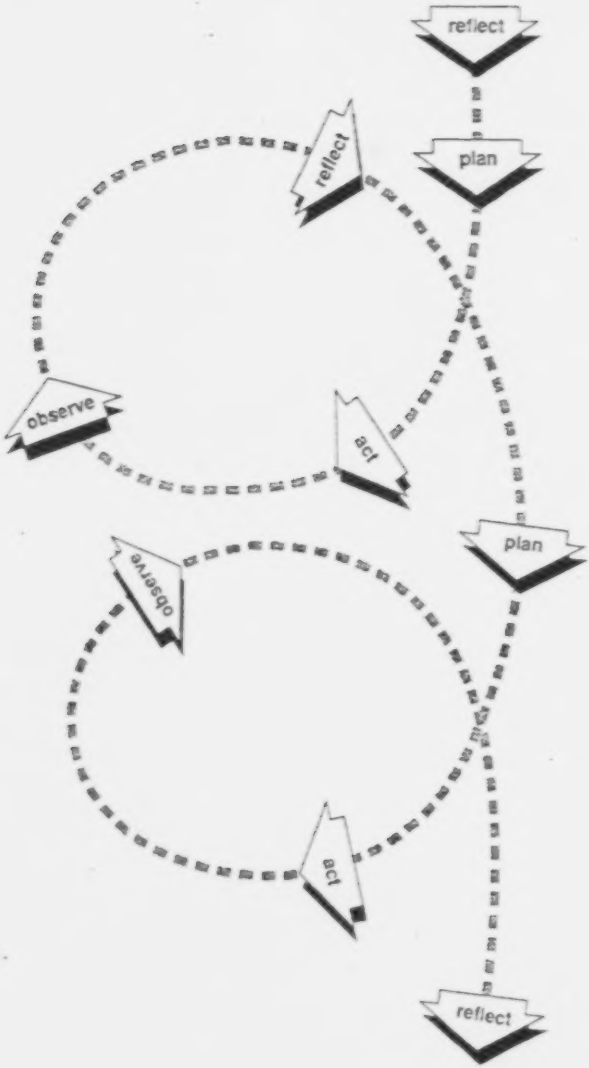
1. a going concern is studied
2. aspects are selected for investigation
3. a solution is generated in the *laboratory*
4. modifications are made so the solution can be put into *practice*
5. the solution is maintained by placing it into the organization to make it a permanent part of the system.

This is in some ways similar to a distinction being made today between traditional scientific research applied **to** education and action research **in** education (although action research does not generate its solutions in the laboratory). Traditional or scientific research is conducted to establish a truth which often remains as a written account - the privileged knowledge of a few. Practical research to which action research belongs, is intended to end in real life applications (Kember and Kelly, undated, p.1).

The term action research is generally credited to Kurt Lewin who in the 1940s and 1950s was one of several social scientists concerned with generating knowledge about a social system with a view to instigating real change (Elden and Chisholm 1993:121).

Figure 1

The Action Research Spiral



The standard representation of the action research cycle is a spiral. Figure 1 (reproduced with the authors' permission) is Kelly and Kember's (undated) diagram of Lewin's research cycle. The idea is not that some fact or truth is found, full stop. Rather, change is intended, a plan is made, action is taken and the results are observed. But that is not the end of it, for there is then reflection on the process undertaken so far, so that further or revised plans can be made, action taken and so on in the direction of the target of change. Succinctly put, "Knowledge without action is meaningless." (Elden and Chisholm 1993:122).

Action research was initially applied to social contexts such as minority groups within a dominant society. The idea was not to analyze situations objectively for the sake of increased knowledge, but to cause changes to occur which would improve social conditions. At about the same time there was similar concern for instigating action based on practical research in educational contexts. The dissatisfaction with traditional scientific and statistically-based research in education, already acknowledged by Rusk in 1932, was captured again by Stephen Corey in 1953 who wrote:

> We are convinced that the disposition to study as objectively as possible, the consequences of our own teaching is more likely to change and improve our practices than is reading about what someone else has discovered regarding the consequences of his teaching. The latter may be helpful. The former is almost certain to be. (cited by Oja and Smulyan 1989:4).

More recently such authors as Carr and Kemmis (1986), McNiff (1988), Nunan (1992) and others have extended the discussion and applications of AR in educational contexts. In Hong Kong, Kember and Kelly have produced the very useful booklet, *Action Research to Improve Teaching* which also has a worthwhile bibliography. The thrust of AR has been and is still primarily applied to social phenomena such as industrial and corporate settings, third world agricultural contexts, hospital environments and family counselling. Yet education is of course fundamentally a social activity and the language classroom in more recent decades has become an increasingly interactive and therefore social environment. Thus, AR for investigating the social phenomenon of the classroom and even whole curricula and institutions with a view to change has clear application for teaching and learning.

2. The action research project

The English enhancement teaching operation at HKU has been growing steadily since 1990. This has meant more students, more courses, more teachers, more committees and a change in management structure. This has further generated steadily increasing pressure on teachers' time - to teach, conduct tutorials, write and manage courses, carry out evaluations and engage in research. Some teachers thrive under these pressures. Most take a more restrained stance, particularly when faced

with a choice of concentrating time on their students and classes, or, research. Students and classes regularly win out.

This was a situation in which action research was a perfect solution. As put by Allwright and Bailey (1991:199) " ... some of the energy teachers around the world currently put into collaborating on producing new syllabuses and new teaching materials in some institutions at least, could be rechannelled into longer-term but hopefully more ultimately collaborative work on classroom research." And this we were fortunate to be able to do.

The concept of action research was new to many of us at the English Centre in 1991 but its introduction was quite timely. The concept was appealing to teachers who wanted to do something with immediate and direct relevance to their teaching. Seven teachers became involved, about a quarter of the teaching staff. While this may have been serendipitous, Kowitz and Knudson (1980:45-46) maintain that the optimal size for problem solving groups is 5 to 7, as that number tends to insure a range of opinions while still allowing for each member to participate freely.

We spent several early meetings sharing our understanding of research in education and action research in general and in our local context. A list of relevant readings was compiled and put in a central place so all could access them when possible. We followed a process similar to that described in Allwright and Bailey *(loc. cit.)*

> ... groups of teachers ... share the initial task of identifying worthwhile issues to investigate by getting together to talk about the things that puzzle them about their classes ... parcel out the crucial but time-consuming task of reading through the literature to find out what has already been done and found out by other people ... [and then] come together again to design their investigation and to describe how it is to be implemented and monitored in their different classrooms. This team approach [is] also ... effective in analyzing and interpreting the resulting data.

Early on in the project, a single individual came forward as a leader who kept the group focused yet who was no more an expert than the rest. According to Kowitz and Knudson (1980:71), groups containing members who engage in high levels of orientation behaviour have a greater probability of achieving consensus. I think this is a significant factor in the success of all collaborative group work, and for us having such a group leader was a key factor.

We had fairly regular meetings for which a simple agenda, provided by the group leader, was generally linked to stages of the research cycle. Whereas one of the valuable attributes of our meetings was the latitude we enjoyed in our discussions, the fact of having an agenda also kept us sufficiently focused to go forward in our action research cycle. Taking notes and keeping minutes of meetings served the important function of formalizing the various group members' reports at different stages of the research cycle.

We followed the research cycle formulated by Kelly and Kember in their booklet. Allwright and Bailey (1991:44) add a gloss to the cycle:

1. identify an issue, interest or problem
2. seek knowledge
3. plan an action
4. implement the action
5. observe the action
6. reflect on your observation
7. revise the plan

From the group's experience, a preliminary step to the list above can be added and that is *the introduction to the idea of research by teachers* for their own purposes and the sharing of ideas and views on action research. This initial stage consolidated a group of like-minded people who were ready to cooperate in a shared endeavour.

The next stage was to *identify an issue, interest or problem*. The groups' members taught on different courses for different faculties but wanted to work as a group and all agreed to work on the same 'problem'. This was that although, over the years, more and more emphasis at our Centre was being placed on self-access work by students, the widespread perception was that the facilities were underutilized. Through discussion in the group, our attention was focused on learner training. The problem was eventually refined and stated as "To identify effective ways of motivating and training learners for self-access." This was something all group members felt could be investigated through an action plan leading to observable results.

At this point we gave ourselves a group identify and became the Self Access Action Research (SAAR) Group, not just an action research group. Fisher and Ellis (1990:46) list group identification as one of the factors in achieving cohesiveness and thus success in groups, and point out that a clear identity is valued by group members. In retrospect it was also important in giving us a recognition factor within our institution, and a certain status in relation to other established committees.

For the next step, *seeking knowledge*, we decided to validate our perception of the problem area by interviewing staff and distributing a questionnaire to get a more accurate understanding of the expectations teachers had themselves about self-access and what they felt about students' attitudes to SA. The survey results were compiled and from this information, reported in full in Martyn and Chan (1992),

it was made clear that our perception of a need to impose learner training and motivation was accurate. What we needed to do next was formulate an action plan.

At this stage in the group's work we made several procedural decisions:

1. We would conduct our AR on a single course to maintain some degree of uniformity of participants

2. we would implement individual action plans within our overall objectives

3. We would record and monitor our action and observations using a common recording tool

4. We would meet regularly to share and discuss our progress or lack thereof.

(Martyn and Chan 1992:65)

The Action Plan form in Figure 2 proved a very useful tool in helping us to focus and consolidate our approaches, objectives and plans. It seems a very simple organizational device, but it was quite effective in empowering us to follow through on our action plans independently while at the same time allowing for comparability.

Details of the *implementation of the action* are fully presented in Martyn and Chan, (1992). In brief, seven different action plans were implemented individually. *Observation* was then undertaken by the individual teachers and experiences were shared in discussion by the whole group. The objectives and related action plans included among other plans ideas as diverse as self-access writing, student self-monitoring tools, and student perceptions and reactions to degrees of teacher control (for this last plan, see Nakhoul 1993).

The *reflection* stage of an AR project is a challenging part of the process. The difference between observing and reflecting in this context has to do with trying to determine what it all means - what the implications are and what the next steps should be. As Nixon writes, "Action Research prompts serious and often uncomfortable questions" (Nixon 1981:5). While each group member surely had individual and private reflections of value as well, the publicly shared reflections on the group's actions and observations contributed to concrete planning in terms of our objectives and in implementing new action plans.

Figure 2

SAAR Action Plan

Teacher:	EAS classes:
Semester 1 approach to self-access:	
SAAR objective: To identify effective ways of motivating and training learners for self-access. Specific objectives:	
Action: strategies, plans, etc.	
Observe: monitoring of students and self	
Comments: add on back of page if desired	

Devised by Elaine Martyn

Some features of the reflection process were:

1. *Planning for an in-house seminar on the group and its work.* This helped us to consolidate our thinking and to come to grips with organizing our observations in order to get them into a coherent and communicative format. It was also important to do this so that we could hear how other teachers in the same working situation responded to our observations and reflections. Obviously, their opinions and reactions would be valuable as an endorsement and would provide constructive criticism.

2. *Preparing for and participating in the SAAR group's meetings.* Knowing that we would be talking to the rest of the AR group about our actions and observations also had a crystallizing effect on our thinking. The meetings themselves gave opportunities to hear one's own thoughts aloud and to have ideas questioned or extended by others.

3. *The monitoring tool.* The action plan/record form (figure 2) was not only useful for observation but also for retrospection or reflection and planning forward. It provided us with topic areas about which we all could contribute based on our individual experiences.

4. *The consideration of other courses.* Because our topic - self-access - potentially involved other courses besides those on which we taught, we were compelled to look at these other courses to a certain extent. This widening of our frame of reference became a process of cross-fertilization - hearing about ideas in other courses, hearing what other teachers were doing and planning, what worked and what did not. We also became concerned throughout the project with *teacher training in self-access* as well, and this gave us an additional reason to look at what teachers were doing or expected to be doing in other courses.

5. *Liaison with course coordinators or managers.* We invited staff responsible for course design and coordination to our later meetings to share our reflections with them. This liaison effort enabled some of the group's work to become institutionalized in course materials, as well as giving the coordinators and course materials writers stronger justifications for pursuing self-access as a required component of a course.

The final stage of the cycle - *revising the plan* - included:

1. *A workshop for teachers* on self-access facilities so that they would be more confident in encouraging and guiding students toward independent learning.

2. *Raising teacher awareness* about the learning styles of our students and the wider context of the university. Both of these factors clearly have great effect on what students are willing and capable of achieving in our English enhancement classes. This has caused us to reflect on and sometimes adjust our expectations.

3. *Revising course materials* which further encourage both teachers and students to use self-access as a viable and productive feature of their coursework.

4. Far more concentration on *developing the self-access facilities* both conceptually and in terms of materials and consulting services for students.

5. *Exchanging and clarifying views on our teaching.* Hearing what 'old' teachers had to say about courses and what 'new' teachers had to say gave us a much fuller picture of teaching practices at our Centre. Through reflection we were able to establish elements of our teaching situation which were being unduly taken for granted as well as to clarify objectives and expectations which were far from transparent for new teachers. This had implications for teacher's notes in materials and in improving the orientation process for new teachers.

3. Weak, strong and critical versions of action research

Finally, the *weak*, *strong* and *critical* versions of action research provide a framework with which to analyze the process. (The terminology can be challenged but will serve the purpose.)

Peters and Robinson (1984) have discussed action research as a methodology. After having surveyed a number of action researchers, they determined that two versions exist.

The *weak* version of action research is a basic problem solving strategy or methodology and may not be based on a particular philosophical or social science approach. This approach typically involves an independent or outside expert and a client group who wish to improve an existing practice (ibid. 121). Candlin (1993), in the course of a presentation at Hong Kong Polytechnic, referred to this version of action research in education as teachers dealing with puzzles they face in the classroom, indicating that the action plans and observation and reflection are contained within that context.

Peters and Robinson's second version is called *strong* AR. In this version, researchers do not rely on the independent role of an outside expert and instead focus on the equal participation of group members in all aspects of the research process from initial problem formulation to the implementation of strategies (ibid. 121). Candlin's interpretation of the *strong* version of AR was that it is collaborative, multi-functional and deals with problem identification, teacher development and institutional change.

It seems that, in terms of this account, it is at the level of problem identification where the AR is determined to be either in the category of *weak* or *strong*. Teachers' initial attempts at AR may be limited to the *weak* version until they develop the confidence and methodology to pursue a stronger and more independent type of research. One must begin at the beginning, however. Implementing *strong*

AR also seems to be dependent upon the willingness of a group to pursue a problem which involves institutional change as well as classroom concerns.

The *critical* version of AR is described by Elliot (1980: 321-322) as a research theory that would explain the ways in which teaching is constrained by factors operating outside the classroom in its institutional, social and political context. Further, there is the implication of increasing the professional autonomy of teachers through a critical version of AR. (This idea of professional autonomy in education, we noted, was already a concern back in 1926.) Carr and Kemmis (1986:130) comment on the emancipation phenomenon associated with action research. Their discussion concerns the development of AR as a reaction to a positivist scientific approach to research that assumed an objective reality and a detached observer. A *critical* research theory then has the central task of emancipating people through their own understandings and actions.

By way of concluding, I would like to try and establish what our SAAR project accomplished in terms of the *weak*, *strong* and *critical* versions of AR. What did we do that made us feel so positive about our efforts, and what might other AR groups consider as successful procedures or strategies?

In terms of *weak* AR we agreed to develop individual action plans for our separate classes within the larger umbrella of learner training. I think that flexibility in our group dynamic was a necessary and sensitive component of our overall affective success. Our language classrooms are our domains, where we work in our own ways to build rapport and confidence with our students; devising action plans which reflected our personal expectations enabled us to work effectively according to our own individual styles.

"Weak" may not be the best term to convey a focus on the individual classroom. Our individual classroom action plans and observations formed the nucleus of all the subsequent discussions that went on as well as the substance of several publications resulting from our AR. It is in the classroom that the fundamental action occurs and the primary observation of change takes place. If a teacher or group of teachers are concerned with issues in their own classrooms only, they are nevertheless instigating real change based on the AR cycle. Monitoring the plan, action, observation and reflection stages is a process we found to be professionally satisfying.

In our SAAR meetings, sharing the confusion and concerns over our individual classroom problems as well as the pride and satisfaction of positive changes in a genuinely interested forum was a very satisfying experience both personally and professionally. In discussing the benefits of peer networks in teaching contexts which in fact our SAAR group was, Sithamparam and Dhamotharan (1992:12) state that the supportive atmosphere of such groups is necessary if teachers are to attempt innovation that will entail personal readjustments as well as gradual accommodation in thinking and practice.

It was the synergistic synthesis of the individuals in the AR group which made the project strong. One of the group's members wrote of the project in an in-house newsletter:

> Both the synthesis of our different insights and the supportive but analytic criticism offered have been important to the continuing 'reflection' which takes place within the group. Moreover, the act of sharing our perceptions has been inspiring and reenergising in itself. Group action research leads to a synergistic state which maximizes the benefits of professional development for the individual, group and institution.
>
> (Nakhoul, in-house communication).

In terms of *strong* AR, we were not only sharing experiences but also collaborating. For some researchers, participatory and/or collaborative research suggests that outside researchers with experience come into the teaching situation and guide teachers in their action research. Examples of this are in Oja and Smulyan's *Collaborative Action Research* and Whyte's *Participatory Action Research*. While this may be helpful in some contexts, we found that we were able to conduct our own research program with support from the relevant literature and from our own motivation.

Our group's interests drove us to consider numerous aspects of our teaching context as we realized we were opening a window on our work which had not been looked through before. Out of the group's observations and reflections we gained insights into our particular teaching and learning world which we were then able to share with our whole Centre. We developed our understanding of what the Centre was expecting of students and how we could or could not help students realize those expectations. Our AR had value not only for our classroom practices but for course development and for language learning resources outside the classroom. The group was able to offer advice with confidence and make suggestions to staff about ways they might take advantage of our experiences and observations and reflections.

Further strengths of collaboration in group work are mentioned by Barker et al. (1987:10-11) in a book entitled *Groups in Process*:

- groups are more efficient than individuals in the recall of information
- correct or accurate responses are made more often by groups than by individuals
- fewer errors in judgement will be made by groups than by individuals

To the extent that we may have engaged in a *critical* version of action research, I would like to speculate that it was the sense of professional autonomy we

achieved which made us most satisfied. The teachers at the Centre had inherited the idea and movement toward increasing self-access in our teaching context. To say this had been imposed is too strong, but there was some uncertainty about what was meant by self-access and there had been little inquiry about it except superficially. Expectations on the part of students and teachers were not initially clear.

What the project group did was take control of the issue by following through in a complete action research cycle. The planning, actions, observations and reflection caused us to look in detail at assumptions and misconceptions about ourselves and our students. Since our overall topic was learner training we had to consider our training and our students' training prior to being in our Centre. We had to consider the expectations we had for students, what expectations they had for our teaching and how we compared to other teaching contexts at the university. We had to have a hard look at the realities of the total educational environment of the university and even at what students would expect to do upon graduation. The more we knew about the situation the more we were able to direct it in ways we had determined would be most effective, thus gaining a measure of freedom. We took control, which was satisfying personally and professionally.

4. Closing remarks

Schecter and Ramirez (1992:205) have recommended that teacher researchers share their experiences for two reasons:

1. Close observation of the workings of such groups can reveal the significance and value of teacher research as perceived by teachers and it can also help pivotal actors in teacher-research projects to take appropriate actions.

2. The study of a variety of teacher-research groups that differ in configuration and goals can provide a needed understanding of the spectra along which different groups may coexist and of the outcomes yielded by various combinations of points along these spectra.

I hope that this paper will have contributed somewhat to these two goals.

References

Allwright, D. & Bailey, K.M. (1991). *Focus on the language classroom.* Cambridge: Cambridge University Press.

Barker, L.L., Wahlens, K.J., Watson, K.W. & Kibler, R.J. (1987). *Groups in process.* New Jersey: Prentice Hall.

Candlin, C.N. (1993). Seminar on action research. Hong Kong: Hong Kong Polytechnic.

Carr, W. & Kemmis, S. (1986). *Becoming critical.* London: The Falcon Press.

Chisholm, R.F. & Elden, M. (1993). Features of emerging action research. *Human Relations,* 46(2):275-297.

Elden, M. & Chisholm, R.F. (1993). Emerging varieties of action research: introduction to the special issue. *Human Relations,* 46(2):121-141.

Elliott, J. (1980). Implications of classroom research for professional development. In E. Hoyle & J. Megarry (eds.), *World yearbook of education 1980: professional development of teachers.* London: Kogan Page.

Fisher, B.A. & Ellis, D.G. (1990). *Small group decision making.* New York: McGraw Hill.

Kember, D. & Kelly, M. (undated). *Using action research to improve teaching.* English Teaching Unit, Hong Kong Polytechnic and the English Teaching Centre, City Polytechnic of Hong Kong.

Kowitz, A.C. & Knutson, T.T. (1980). *Decision making in small groups.* Boston, MA.: Allyn & Bacon.

Martyn, E. & Chan, N.Y. (1992). Self-access action research: a progress report. *Hong Kong papers in linguistics and language teaching,* 15:59-68. Hong Kong: The English Centre, Hong Kong University.

McNiff, J. (1988). *Action research: principles and practice.* London: MacMillan Education.

Nakhoul, L. (1993). Letting go: preparing teachers and students for learner independence. In J. Edge & K. Richards (eds.), *Teachers develop teachers' research* (pp. 147-155). Oxford: Heinemann.

Nixon, J. (1981). *A teacher's guide to action research.* London: Grant McIntyre.

Nunan, D.C. (ed.), (1992). *Collaborative language learning and teaching.* Cambridge: Cambridge University Press.

Oja, S.N. & Smulyan, L. (1989). *Collaborative action research; a developmental approach.* London: The Falmer Press.

Peters, M. & Robinson, V. (1984) The origins and status of action research. *The Journal of Applied Behavioral Science,* 20(2):113-124.

Rusk, R.R. (1932). *Research in education.* London: University of London Press.

Schecter, S.R. & Ramirez, R. (1992). A Teacher-research group in action. In D. Nunan (ed.), (pp. 192-207).

Sithanparan, S. & Dhamtharan, M. (1992). Peer networking towards self-direction in teacher development. *English Teaching Forum*, 30(1):12-15.

Whyte, W.F. (ed.), (1991). *Participatory action research*. California: Sage Publications.

BEST COPY AVAILABLE